

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A bipolar transistor, comprising:
a first semiconductor region of a first conductivity type defining a collector region;
a second semiconductor region of a second conductivity type defining a base region;
a third semiconductor region of said first conductivity type defining an emitter region; and
a metal layer providing contacts to said base and emitter regions;
wherein the transistor has a specific area resistance less than $500\text{m}\Omega\text{mm}^2$ when the metal layer has a thickness less than $3\mu\text{m}$;
and
wherein the thickness of said metal layer ~~has a thickness~~ is greater than $3\mu\text{m}$.
2. (Currently Amended) A bipolar transistor according to claim 1, wherein the thickness of the metal layer ~~has a thickness~~ is no less than $4\mu\text{m}$.
3. (Currently Amended) A bipolar transistor according to, claim 1 wherein the thickness of the metal layer ~~has a thickness~~ is no less than $6\mu\text{m}$.
4. (Previously Presented) A bipolar transistor according to, claim 1 wherein the emitter region defines a first surface, the base region extending to said surface in locations defined by apertures through emitter region, said metal layer overlying said first surface.
5. (Original) A bipolar transistor according to claim 4, wherein adjacent apertures are spaced less than $100\mu\text{m}$ from each other.

6. (Canceled).

7. (Previously Presented) The bipolar transistor according to claim 1, wherein an increase in the thickness of the metal layer corresponds to a reduction in a voltage drop in the contacts to said base and emitter regions.

8. (Previously Presented) The bipolar transistor according to claim 7, wherein the reduction in the voltage drop in the contacts is proportional to the increase in the thickness of the metal layer.

9. (New) The bipolar transistor according to claim 1, wherein the metal layer comprises a material providing the specific area resistance less than 500mOhms mm^2 when the metal layer has the thickness less than $3\mu\text{m}$.

10. (New) A method of manufacturing a bipolar transistor, the method comprising:
providing a bipolar transistor including a base region, an emitter region and a metal layer providing contacts to the base region and the emitter region, the bipolar transistor having a specific area resistance of less than 500mOhms mm^2 when the metal layer has a thickness of less than $3\mu\text{m}$; and

increasing the thickness of the metal layer to be greater than $3\mu\text{m}$.

11. (New) The method according to claim 10, wherein increasing the thickness of the metal layer to be greater than $3\mu\text{m}$ comprises increasing the thickness of the metal layer to be no less than $4\mu\text{m}$.

12. (New) The method according to claim 10, wherein increasing the thickness of the metal layer to be greater than $3\mu\text{m}$ comprises increasing the thickness of the metal layer to be no less than $6\mu\text{m}$.

13. (New) The method according to claim 10, wherein the emitter region defines a first surface, the base region extending to the first surface in locations defined by apertures through the emitter region, said metal layer overlying said first surface.

14. (New) The method according to claim 13, wherein adjacent ones of the apertures are spaced less than $100\mu\text{m}$ from each other.

15. (New) The method according to claim 10, wherein the increase in the thickness of the metal layer corresponds to a reduction in a voltage drop in the contacts to said base and emitter regions.

16. (New) The method according to claim 15, wherein the reduction in the voltage drop in the contacts is proportional to the increase in the thickness of the metal layer.